What is claimed is:

1. A mobile phone receiver/transmitter, optionally built within or externally connected to a mobile phone, comprising:

5   a power supply unit for serving as a chargeable power source;

           an incoming call detector, connected to the mobile phone, for detecting a call state of the mobile phone and generating an incoming call signal while detecting an incoming call;

           an encoder/decoder, connected to the mobile phone, for processing an analog-to-digital/digital-to-analog conversion and a linear encoding/decoding for input signals;

           a spread spectrum function module, connected to the encoder/decoder, for providing the input signals a spread spectrum process;

           a radio frequency circuit, connected to the spread spectrum module, for transmitting signals from the spread spectrum function module or inputting the signals to the spread spectrum module;

           a memory unit, connected to the spread spectrum function module, for storing ID codes and settings generated by the spread spectrum function module;

20   a main controller, connected to the incoming call detector and the spread spectrum function module, for activating the spread spectrum function module and the radio frequency circuit while receiving the incoming call signal; and

           an off-hook/on-hook circuit, connected to the main controller, for

25   transmitting an off-hook signal or an on-hook signal to the mobile phone.

2. The mobile phone receiver/transmitter as claimed in claim 1, wherein power

of the power supply unit is supplied by a chargeable battery and is substituted by an alkaline battery.

3. .The mobile phone receiver/transmitter as claimed in claim 1, wherein the spread spectrum function module further comprises:

an I/O interface;

an oscillator for providing at least one oscillation frequency;

a voice modulator for providing a adaptation differential pulse code modulation (ADPCM) and a demodulation;

a base frequency modulator for converting parallel data to serial data and providing a scramble/descramble, a spread spectrum/de-spread spectrum process, a time division multiplexing control, a data timing recovery, an automatic frequency calibration (AFC), an automatic gain control (AGC), and an automatic control rate adaptation;

a resetter for resetting the spread spectrum function module;

a park signal detector for detecting if there is a park signal or not; and

an ID code generator/identifier for generating and identifying the ID codes.

4. The mobile phone receiver/transmitter as claimed in claim 3, wherein the I/O interface is connected to a light emitting diode for indicating a mode of vocal communication.

5. The mobile phone receiver/transmitter as claimed in claim 1, wherein the memory unit is an electronic erasable program read-only memory (EEPROM).

6. The mobile phone receiver/transmitter as claimed in claim 1, wherein the main controller is connected to a light emitting diode for being a low-electricity indicator.

- 14 -

7.   A radio earphone receiver/transmitter, comprising:

an earphone;

a microphone;

a power supply unit for providing a chargeable power source;

a control switch for generating an off-hook/on-hook signal while being pressed by a user;

an encoder/decoder, connected to the earphone and the microphone, for providing an analog-to-digital/digital-to-analog conversion and a linear encoding/decoding for input signals; a spread spectrum function module, connected to the encoder/decoder, for providing a spread spectrum process on the input signals;

a radio frequency circuit, connected to the spread spectrum function module, for transmitting signals from the spread spectrum function module or inputting the signals to the spread spectrum function module;

a memory unit, connected to the spread spectrum function module, for storing ID codes and settings generated by the spread spectrum function module; and

a main controller, connected to the control switch and spread spectrum function module, for receiving the off-hook/on-hook signal generated from the control switch and inputting the off-hook/on-hook signal to the spread spectrum function module to   activate the radio frequency circuit.

8.   The radio earphone receiver/transmitter as claimed in claim 7, wherein the power of the power supply unit is provided by a chargeable battery and is substituted by an alkaline battery.

9.   The radio earphone receiver/transmitter as claimed in claim 7, wherein the spread spectrum function module further comprising:

an I/O interface;

an oscillator for providing at least one oscillation frequency;

a voice modulator for providing an adaptation differential pulse code modulation (ADPCM) and a demodulation;

a base frequency modulator for converting parallel data to serial data and providing a scramble/descramble, a spread spectrum/de-spread spectrum, a time division multiplexing control, a data timing recovery, an automatic frequency calibration (AFC), an automatic gain control (AGC), and an automatic control rate adaptation;

a resetter for resetting the spread spectrum function module;

a park signal detector for detecting if there's a park signal or not; and

an ID code generator/identifier for generating and identifying the ID codes.

10. The radio earphone receiver/transmitter as claimed in claim 9, wherein the I/O interface is connected to a light emitting diode for indicating a mode of vocal communication.

11. The radio earphone receiver/transmitter as claimed in claim 9, wherein the I/O interface is connected to a plurality of sound volume keys.

12. The radio earphone receiver/transmitter as claimed in claim 7, wherein the memory unit is an electronic erasable program read-only memory (EEPROM).

13. The radio earphone receiver/transmitter as claimed in claim 7, wherein the main controller is connected to a light emitting diode for being a low-electricity indicator.